# STATE OF COLORADO



# Third Annual Report to the Transportation Legislation Review Committee on the Status of Waste Tire Recycling In Colorado for Calendar Year 2006

Submitted to the Transportation Legislation Review Committee by the Division of Hazardous Materials and Waste Management Colorado Department of Public Health and Environment June 29, 2007

### **DOCUMENT INFORMATION**

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Committee on the Status of Waste Tire Recycling in Colorado

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in the state of Colorado for calendar year 2006.

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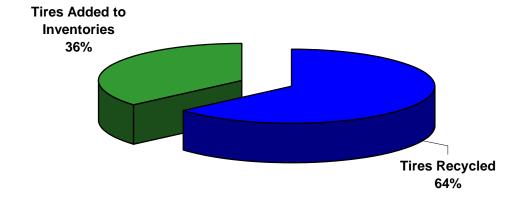
## Third Annual Report to the Transportation Legislation Review Committee on the Status of Waste Tire Recycling in Colorado for Calendar Year 2006

This third annual report on waste tire recycling is being transmitted to the Transportation Legislation Review Committee (the Committee) as required by House Bill 04-1428 and section 25-17-202.7, C.R.S. The statute requires the Colorado Department of Public Health and Environment (the Department) to issue a report to the Committee on or before July 1st each year including the total number of waste tires recycled in the state according to information submitted to the department pursuant to the Regulations Pertaining to Solid Waste Sites and Facilities (6 CCR 1007-2, Sections 8.4.1(B) and 10.2.2.).

A total of 2,857,057 waste tires (or scrap tires) were recycled in Colorado during calendar year 2006. As shown in Figure 1 (below), 64% of the waste tires that were generated during this period were recycled. The remaining 36% of waste tires generated were either sent for long-term storage in a permitted tire monofill or added to inventory storage at tire recycling facilities awaiting further processing and development of end-use markets.

#### Figure 1

# WASTE TIRES GENERATED IN 2006 PERCENTAGE OF TIRES RECYCLED

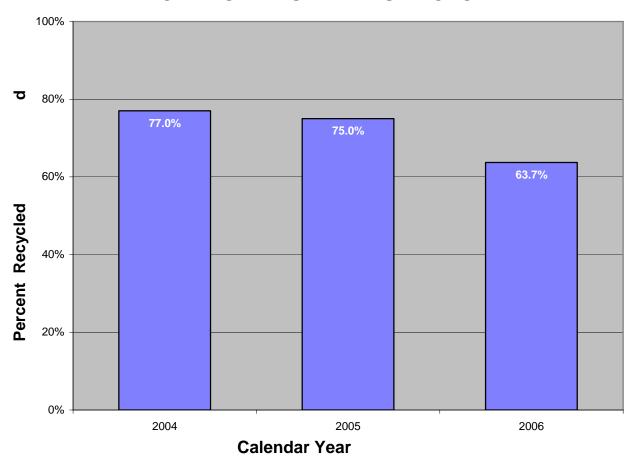


About 4,484,890 waste tires were generated in Colorado during calendar year 2006, based on the number of scrap tires that tire facilities reported receiving. Considering Colorado's population of approximately 4,753,377 people, this estimated number approximates the accepted nationwide industry standard that predicts a tire generation rate of 1 waste tire/person/year.

As Figure 2 illustrates, the percentage of waste tires that were recycled during calendar year (CY) 2006 fell from 75% to approximately 64% due to increased inventories at tire recycling facilities. A significant amount of the recycling rate decrease is attributable to the addition of 418,600 tires to the inventory of one facility in particular that uses the tires for tire derived fuel. This facility is installing new equipment to increase tire-derived energy by 50+%. Therefore, we believe this to be only a one-year decrease in the recycling rate.

Figure 2

ANNUAL COMPARISON
PERCENT OF WASTE TIRES RECYCLED



The Department gathers this information through annual reporting from waste tire collection, recycling, and storage facilities. The department continued outreach efforts to educate tire facilities regarding their compliance and reporting responsibilities. Furthermore, the regulated community took significant strides to improve inventory accounting methods and reporting accuracy. Hence, the Department believes the result is the submittal of the most accurate waste tire recycling report to date.

Figure 3 (below) captures the end-use markets for waste tires that were recycled during calendar year 2006. Of the nine end-use markets identified, the top five end-use markets included burning waste tires as tire derived fuel, the resale of whole tires for reuse, the use of tire bales in fences and windbreaks, the use of tire shreds as the leachate drainage layer in private and government-owned sanitary landfills, and the use of crumb rubber in the manufacture of recreational surfaces such as playgrounds and sports fields.

Figure 3
2006 RECYCLED WASTE TIRE
END USE MARKETS

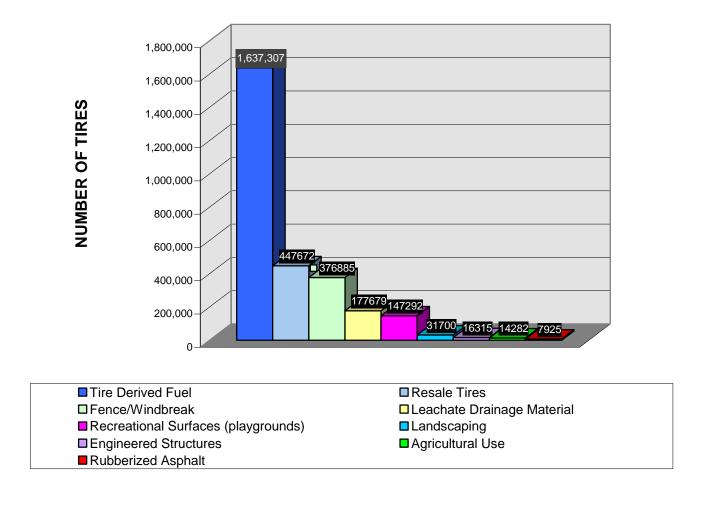


Figure 4 (below) reflects the number of waste tires in storage at designated tire facilities statewide at the end of calendar year 2006. As this chart illustrates, the on-site waste tire inventory increased by 1.6 million tires during the course of the year. While some tire handling facilities in the state increased their storage inventories while awaiting further processing and development of end-use markets, other tire

facilities actually decreased their storage inventory through recycling efforts that led to tires being shipped off-site for reuse.

Figure 4

## **2006 WASTE TIRE INVENTORY**



It is noteworthy to mention that there are a much greater number of waste tires in statewide storage inventories than reported for CY 2005. This is because, in past reporting years, not all permitted tire monofills included tires that were historically buried on-site as part of their existing storage inventory. For this report, these buried tire inventories have been included.

#### 2005 Legislation

Two bills were passed during the 2005 legislative session that directly impact the management of waste tires in Colorado. The Waste Motor Vehicle Tire Hauler Act (HB 05-1126) requires the registration of commercial transporters of waste motor vehicle tires. This should ensure the transportation and delivery of waste tires to proper storage and recycling facilities and minimize the illegal dumping of tires. Senate Bill 05-141 regulates the disposal of residentially generated waste tires. Effective July 1, 2007, this bill

limits the disposal of residentially generated tires in landfills. The combined result of these bills should be to ensure that tires are commercially transported to appropriate facilities, and that more of these tires are ultimately recycled. Data collected through future annual reporting should document the net effect of the subject legislation.